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EXAMINER

ZERVIGON, RUDY

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,540

Applicant(s)

KENNEDY ET AL.

Examiner

Rudy Zervigon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. <u>2/9/2006</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claim 26 is withdrawn in view of the newly discovered reference to Simonson; Peter Melott (US 5681135 A). Rejections based on the newly cited reference follow.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “131” has been used to designate both “upper portion”, “threads” and “external threads”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters “128”, “130”, “131”, “136” have both been used to designate fastener member 128. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing

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date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character not mentioned in the description: 145. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters “145”, “129” have both been used to designate head 129. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR

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1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “12” has been used to designate both “second member”, “first part”, and “inner electrode member”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “14” has been used to designate both “outer electrode member”, “second member”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “18” has been used to designate both “backing plate”, “first member”, and “second part”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “22” has been used to designate both “backing ring”, “first member”, and “second part”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance..

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10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “21” has been used to designate both “top surface”, and “second surface”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

11. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “24” has been used to designate both “top plate”, and “thid part”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

12. The disclosure is objected to because of the following informalities: The specification refers to numerous components shown in the drawings with aliases. Why? This only confounds the reader even further when attempting to interpret the equally perplexing drawings. See above.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claims 1-21, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes; Michael et al. (US 6,818,096 B2) in view of Ishida; Toshimichi et al. (US 5,766,364 A). Barnes teaches a component (Figure 1; column 1, line 55 - column 2, line 58) of a plasma (abstract) processing apparatus, comprising: a first member (7; Figure 1; column 2, lines 34-58) attached to a second member (1,8; Figure 1), the first member (7; Figure 1; column 2, lines 34-58) including a plurality of through apertures (T-shaped hole for 22; Figure 1; column 2, lines 35-58) having a first portion (top portion of through hole for 22; Figure 1; column 2, lines 35-58) and a second portion (bottom portion of through hole for 22; Figure 1; column 2, lines 35-58) wider than the first portion (top portion of through hole for 22; Figure 1; column 2, lines 35-58); and a plurality of first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) each mounted in an aperture (T-shaped hole for 22; Figure 1; column 2, lines 35-58) of the first member (7; Figure 1; column 2, lines 34-58), each first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58) including a head (widest portion of 22; Figure 1; column 2, lines 35-58) configured to prevent rotation of the first fastener members (dark-shaded

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members 22; Figure 1; column 2, lines 35-58) relative to the first member (7; Figure 1; column 2, lines 34-58), the head (widest portion of 22; Figure 1; column 2, lines 35-58) having a bearing surface (lowest surface of widest portion of 22; Figure 1; column 2, lines 35-58) facing a surface that at least partially defines the second portion (bottom portion of through hole for 22; Figure 1; column 2, lines 35-58) of the aperture (T-shaped hole for 22; Figure 1; column 2, lines 35-58) - claim 1

Barnes further teaches:

- i. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 1, wherein (i) the first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) are T-nuts with internal threads, or (ii) the first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) comprise a head (top thickest portion of 22; Figure 1) and an externally threaded end portion opposite the head (top thickest portion of 22; Figure 1), as claimed by claim 2. It is inherent that Barnes' bolts have "a head and an externally threaded end portion opposite the head".
- ii. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 1, wherein the surface that at least partially defines the second portion (bottom portion of through hole for 22; Figure 1; column 2, lines 35-58) of the aperture (T-shaped hole for 22; Figure 1; column 2, lines 35-58) is a second bearing surface – claim 3
- iii. first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) comprise a rectangular-shaped head (see rectangular shape in Figure 1), as claimed by claim 5

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- iv. first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) includes a noncircular-shaped head (see rectangular shape in Figure 1), as claimed by claim 6
- v. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 1, further comprising: a temperature-controlled (20; Figure 1; column 2, lines 35-58) top plate (7; Figure 1; column 2, lines 35-58) adjacent the first portion (top portion of through hole for 22; Figure 1; column 2, lines 35-58) of the apertures (T-shaped hole for 22; Figure 1; column 2, lines 35-58) of the first member (7; Figure 1; column 2, lines 34-58) and including a plurality of through openings (top portion of T-shaped hole for 22 - not labelled; Figure 1) each aligned with a respective aperture (T-shaped hole for 22; Figure 1; column 2, lines 35-58) in the first member (7; Figure 1; column 2, lines 34-58); and a plurality of second fastener members ("bolts 18"; Figure 1; column 2, lines 35-58) each engaged with a respective first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58) to secure the first member (7; Figure 1; column 2, lines 34-58) to the top plate (7; Figure 1; column 2, lines 35-58), as claimed by claim 4
- vi. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 4, wherein (i) each of the first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) comprises internal threads, and each of the second fastener members ("bolts 18"; Figure 1; column 2, lines 35-58) comprises external threads engaged with the internal threads of a respective first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58), or (ii) each of the first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) comprises external threads, and each of the second

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fastener members (“bolts 18”; Figure 1; column 2, lines 35-58) comprises internal threads engaged with the external threads of a respective first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58), as claimed by claim 9. It is inherent that Barnes’ “bolts” have “a head and an externally threaded end portion opposite the head”. And that Barnes’ “bolts” have “first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) comprises internal threads, and each of the second fastener members (“bolts 18”; Figure 1; column 2, lines 35-58) comprises external threads engaged with the internal threads of a respective first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58)”.

Barnes further teaches:

- i. A showerhead (Figure 1) electrode (7; Figure 1) assembly for a plasma (abstract) processing apparatus (Figure 1), comprising; an electrode (7; Figure 1) having gas a injection opening (5; Figure 1); a backing member (1; Figure 1) secured to the electrode (7), the backing member (1; Figure 1) including a plurality of through apertures (T-shaped hole for 18; Figure 1; column 2, lines 35-58) each having a first portion (bottom portion of through hole for 18; Figure 1; column 2, lines 35-58) and a second portion (top portion of through hole for 18; Figure 1) wider than the first portion (bottom portion of through hole for 18; Figure 1); a top plate (7; Figure 1; column 2, lines 35-58) including a plurality of through openings (top portion of T-shaped hole for 18 - not labelled; Figure 1) each of which is aligned with a respective aperture (T-shaped hole for 18; Figure 1; column 2, lines 35-58) in the backing member (1; Figure 1); second fastener member (18;

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Figure 1) to secure the backing member (1; Figure 1) to the top plate (7; Figure 1; column 2, lines 35-58) – claim 17

- ii. second fastener members (“bolts 18”; Figure 1; column 2, lines 35-58) comprises external threads engaged with the internal threads of a respective first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58) – claim 21 It is inherent that Barnes’ “bolts” have “a head and an externally threaded end portion opposite the head” and are “second fastener members comprises external threads” – claim 21
- iii. T-nut first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58), as claimed by claim 27
- iv. The component of Claim 11, wherein the third part is a temperature-controlled top plate (8), as claimed by claim 28
- v. The showerhead electrode assembly of Claim 17, wherein the top plate (8) is adjacent the first portion of the apertures (T-shaped hole for 18; Figure 1; column 2, lines 35-58) of the backing member (1; Figure 1) and is temperature-controlled, as claimed by claim 29

Barnes does not teach:

- i. Barnes’ first member (7; Figure 1; column 2, lines 34-58) is bonded to Barnes’ second member (1,8; Figure 1)
- ii. the bearing surface of each of the first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) each include a head (top thickest portion of 22; Figure 1) bonded with an elastomer to the surface - claim 3
- iii. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 1, wherein the first member (7; Figure 1; column 2, lines 34-58) comprises a plate made of graphite, and

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- the second member (1,8; Figure 1) comprises a showerhead (top thickest portion of 22; Figure 1) electrode made of silicon, as claimed by claim 7
- iv. The component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 1, wherein the second member (1,8; Figure 1) comprises an inner silicon electrode and a segmented outer silicon electrode, and the first member (7; Figure 1; column 2, lines 34-58) comprises a graphite backing plate secured to the inner silicon electrode and a graphite backing ring secured to the outer silicon electrode, as claimed by claim 8
- v. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Barne's plasma processing apparatus (abstract), comprising: Barne's first part (3; Figure 1) including Barne's attachment surface (2/3 interface; Figure 1) and Barne's exposed surface (lowest surface of 3) adapted to be exposed to Barne's interior of Barne's plasma processing chamber (Abstract); Barne's second part (2; Figure 1) including Barne's first surface (Lowest Surface of 2; Figure 1) spaced from Barne's second surface (Top Surface of 2; Figure 1), Barne's first surface (Lowest Surface of 2; Figure 1) being bonded to Barne's attachment surface (2/3 interface; Figure 1) of Barne's first part (3; Figure 1), Barne's second part (2; Figure 1) including axially extending apertures (4) extending between Barne's first surface (Lowest Surface of 2; Figure 1) and Barne's second surface (Top Surface of 2; Figure 1), each of the apertures (4) including Barne's first portion opening in Barne's first surface (Lowest Surface of 2; Figure 1) and Barne's second portion opening in Barne's second surface (Top Surface of 2; Figure 1), Barne's first portion being wider in Barne's transverse direction than Barne's second portion; and fastener

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- members located in Barne's second portions (top surface of 4) of Barne's apertures (4), as claimed 10
- vi. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 10, further comprising: Barne's third part (7) adjacent Barne's second surface (Top Surface of 2; Figure 1) of Barne's second part (2; Figure 1) and including through openings (holes in 2 accommodating "pins/studs" 4) aligned with Barne's apertures (4) in Barne's second part (2; Figure 1); and Barne's connectors ("pins/studs" 4) located in Barne's openings (holes in 2 accommodating "pins/studs" 4), the Barne's connectors ("pins/studs" 4) being detachably engaged with the fastener members such that Barne's third part (7) is detachable from Barne's second part (2; Figure 1), as claimed by claim 11
- vii. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 10, wherein Barne's first part (3; Figure 1) is Barne's showerhead electrode, and Barne's second part (2; Figure 1) is Barne's backing plate, as claimed by claim 12
- viii. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 11, wherein the fastener members are T-nuts, and the Barne's connectors ("pins/studs" 4) include external threads, as claimed by claim 13
- ix. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 10, wherein Barne's second portions (top surface of 4) of Barne's apertures (4) comprise at least one load-bearing surface (top surface of "pins/studs" 4) extending in Barne's transverse direction, and the fastener members comprise at least one surface bonded to Barne's load-bearing surface (top surface of "pins/studs" 4), as claimed by claim 14

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- x. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 10, wherein the fastener members are T-nuts, as claimed by claim 15
- xi. Barne's component (Figure 1; column 1, line 55 - column 2, line 58) of Claim 11, wherein Barne's first portions of Barne's apertures (4) are round holes having diameters larger than diameters of openings (holes in 2 accommodating "pins/studs" 4) in Barne's third part (7), as claimed by claim 16
- xii. a silicon electrode having gas injection openings – claim 17
- xiii. a graphite backing member (1; Figure 1) – claim 17
- xiv. a plurality of first fastener members, each first fastener member being mounted in a respective aperture (T-shaped hole for 18; Figure 1; column 2, lines 35-58) of the backing member (1; Figure 1), the first fastener member (member between 7 and 22; Figure 1; column 2, lines 35-58) including a bearing surface (lowest surface of widest portion of 22; Figure 1; column 2, lines 35-58) facing a surface at least partially defining the second portion (top portion of through hole for 18; Figure 1) of the apertures (T-shaped hole for 18; Figure 1; column 2, lines 35-58) – claim 17
- xv. The showerhead electrode assembly of Claim 17, wherein the first fastener members each comprise a head adhesively bonded to the bearing surface of the aperture, and/or the first fastener members are T-nuts – claim 18
- xvi. The showerhead electrode assembly of Claim 17, wherein the second portion of each aperture is configured to prevent rotation of the first fastener member relative to the backing member (1; Figure 1) – claim 19

- xvii. The showerhead electrode assembly of Claim 17, wherein the silicon electrode comprises an inner member and a segmented outer member, and the backing member (1; Figure 1) comprises a backing plate secured to the inner member and a backing ring secured to the outer member – claim 20
- xviii. The showerhead electrode assembly of Claim 17, wherein (i) each of the first fastener members comprises internal threads, or (ii) each of the first fastener members comprises external threads - claim 21
- xix. The showerhead electrode assembly of Claim 17, wherein the backing member (1; Figure 1) comprises a first surface and a second surface opposite the first surface, the first surface is secured to the silicon electrode and the second surface is secured to the top plate (7; Figure 1; column 2, lines 35-58), as claimed by claim 30

Ishida teaches a similarly constructed plasma apparatus (Figure 1) and electrode (106; Figure 1, 3-5) including a plurality of first fastener members (109; Figures 3-4) with a first portion (Top of 109) being wider in transverse direction than a second portion (Bottom of 109). Ishida's first fastener members (109; Figures 3-4) each include a head (top thickest portion of 109; Figure 1) bonded with an elastomer (31a – "O-rings"; Figure 3; column 4, lines 23-28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Ishida's first fastener members (109; Figures 3-4) to Barnes' apparatus and construct Barnes' electrode of silicon, having plural gas injection openings, and construct Barnes' backing member (1; Figure 1) of graphite.

Motivation to add Ishida's first fastener members (109; Figures 3-4) to Barnes' apparatus is for transferring heat among Ishida's component parts to avoid deformation as taught by Ishida

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(column 2; lines 39-46), and motivation to construct Barnes' a electrode of silicon, having plural gas injection openings, and construct Barnes' backing member (1; Figure 1) of graphite is for using plasma compliant materials as taught by Barnes (column 1; lines 9-21). Further, it is well established that the duplication of parts is obvious (In re Harza , 274 F.2d 669, 124 USPQ 378 (CCPA 1960) MPEP 2144.04). Further, it has been held that it is obvious to make whole elements seperable (In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) – MPEP 2144.04.

1. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes; Michael et al. (US 6,818,096 B2) and Ishida; Toshimichi et al. (US 5,766,364 A) in view of Simonson; Peter Melott (US 5681135 A). Both Barnes and Ishida are discussed above. Barnes and Ishida do not teach Barne's first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) has an externally threaded end portion opposite the head (widest portion of 22; Figure 1; column 2, lines 35-58).

Simonson teaches first fastener members (91; Figure 6) which has externally threaded end portion (100; Figure 6; column 9; lines 11-21) opposite the head (106; Figure 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add external threads to Barnes's first fastener members (dark-shaded members 22; Figure 1; column 2, lines 35-58) as taught by Simonson.

Motivation to add external threads to Barnes's first fastener members as taught by Simonson is for preventing removal of Simonson's first fastener members (91; Figure 6; column 2, lines 35-58).

Response to Arguments

2. Applicant's arguments filed January 30, 2006 have been fully considered but they are not persuasive.

3. Applicant states:

“

Referring to Figure 1 of Barnes, the Official Action states that Barnes discloses a component comprising a “first member” 7 (i.e., the lid 7) bonded to a “second member” 1, 8 (i.e., upper plate 1 and outer ring 8) ...

“

Applicant is mistaken. The Examiner specifically stated that Barnes does not teach “Barnes’ first member (7; Figure 1; column 2, lines 34-58) is bonded to Barnes’ second member (1,8; Figure 1)”.

Applicant’s summary of the January 26, 2006 interview, Applicant’s extensive and confusing amendments to the specification to support the drawings, and the above new grounds of rejection are indicative of the poorly written specification and drawings. The remainder of Applicant’s arguments are moot in view of the new grounds of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272-1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (571) 273-8300. Any Inquiry

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of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.

Parviz Hassanzadeh
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